IN THE APPLICATION

OF

Jan Friedmann

FOR

Aqua-Terra Planetary Transport System and Development Pneumatic & Electro-Magnetic Underwater Tube-Link Transportation System

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Michael A. Kroll
Attorney for Applicant

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates generally to transportation systems and, more specifically, to an underwater transportation system that utilizes pneumatic and magnetic principles to propel a cylinder container containing cargo and eventually passengers through a tube-link network located beneath the surface of the ocean. A plurality of sub-surface tube links interconnect a plurality of ocean based aqua stations and land based terra stations. Each aqua station comprises a surface structure that is typically circular in shape with a substantially conical sub-surface base extending downward therefrom with the inferior portion of said sub-surface based anchored to the ocean floor by a platform base and/or retractable anchors, depending on the depth of the water at that location.

The aqua stations are designed to be totally self sufficient although some goods and supplies will be transported in cylinder containers thereto and from terra stations via the sea to land transport tube-links. For security purposes, no sea vessels will be permitted closer than three hundred feet (300') from the

perimeter of the aqua stations. Loading and unloading facilities for air and sea vessels are two independent platforms located on either side of the access platform that contains the access conveyor tunnel to the Aqua Station. This is the only alternate way into the Aqua Stations besides the tube-link from Terra Stations.

The present invention utilizes natural resources such as wind, water, and solar energy to generate sufficient power to supply the needs of the aqua station, sub-stations located on the aqua stations, and the transport system. However, the primary power source is the oceanic waterfall system created by a double hull parallel to the subsurface portion of all aqua stations. This double hull surrounds the subsurface portion of each aqua station and is formed by an inverted skirt that moves vertically along the outer body of the aqua stations to permit water to enter when lowered and disallow water from entering when raised.

This oceanic waterfall system is used to turn turbines located in the lower portion of the aqua station and the salt water is also directed to the desalinization facilities to be used as needed. Excess water is discharged through a tube

network designed for such purpose. Included are critical infrastructure services such as housing, engineering and utilities, security, desalinization facilities, greenhouse farming, sea farming, educational facilities, garment and other type of manufacturing facilities to name a few.

Recreational facilities are dispersed throughout the aqua station and include, but are not limited to, resort facilities, outdoor and indoor golf courses, sports arenas, recreational parks, sports tracks for runners, walkers, and bicycle riders, and facilities for ice skaters, swimmers, and all other indoor and outdoor sport activities that may be desired.

Defense and security is paramount throughout the entire system with all terra and aqua stations having state of the art detection and intervention systems in place. Satellites monitor the air space, the sub-water transport tube-link network, the aqua stations and the six floating security platforms forming a two mile security ring that surrounds each station. These security platforms contain thereon equipment capable of long and short range radar, sonar, visual, audio, and laser systems to provide multi-layered detection and defense systems for scanning the air and water space within a substantial area proximal to each

station to provide adequate response time in the case of an imminent threat. A plurality of defense options are provided for instances when a potential threat is detected, the defense system includes solar powered drone aircraft, sub-surface security/maintenance vehicles, smart torpedo launchers, electronic guidance scrambler and surface to air laser beam devices. Furthermore, a plurality of passive defense options are available including a retractable dome and an emergency retractable sub-surface explosion proof stainless and special alloy composite curtain that may be deployed during an emergency. Facility security is comprehensive throughout the entire network whether ocean or land based and includes specially trained security personnel and cutting edge surveillance, detection, and screening devices.

The present invention seeks to revolutionize the manner in which cargo and people travel by offering a high-speed alternative for long distance destinations. Additionally, the aqua stations are designed with resort qualities for living and/or holiday pleasures. The present invention is also environmentally friendly since it relies on natural resources and not on the burning of fossil fuels and thus being more cost-effective than present day airline and cargo ship users.

The present invention provides the construction of floating and anchored aquatic stations (Aqua Stations) and their related land-based floatable land stations (Terra Stations). The Aqua Stations are to be united/linked by a sub-water tube link system connecting each Stations to each other to form a long distance super speed electro-magnetic and pneumatic subsurface transportation system for use in transporting cargo and passengers to distant places in a very short time.

The transport system incorporates cylinder containers that travel within a sub-water tube-link network connecting to a network of Aqua Stations in distant areas. Each Aqua Station shall be approximately seven (7) to ten (10) miles in diameter and located not less than 15.2 miles off shore at all locations.

Each Aqua Station shall be connected to one or more land-based floatable Terra Stations. Each Terra Station is a collection center for cargo and passengers to be boarded onto the cylinder containers for transport out to the Aqua Station for a stay or boarding onto cylinder containers heading to other desired destination.

The Terra Stations are floatable as an additional safety feature of the system to assure survival in case of rising ocean waters and possible deterioration or collapsing coastlines, given that global warming continues and thus, the melting of polar ice caps will cause ocean waters to rise.

Each tube section has a double corrugated wall, is approximately thirty to fifty feet long and fifteen to eighteen feet in diameter. The cylinder containers/capsules are approximately twenty to thirty feet long and twelve to fifteen feet in diameter able to travel through the tube-link network at speeds up to 14,000 mph even though lower speeds of 4-5,000 mph may be desired and sufficient at first.

The Aqua Stations are giant floating islands/mini-cities, connected by a network of specialized tubes. Each Aqua Station is anchored to the bottom of a body of water (i.e. ocean), with a capacity to submerge through a ballast system, if necessary, as is also the case with the self-sufficient and floatable sub-stations of the smaller domed facilities surrounding the central energy core.

These Aqua Stations are self-sufficient in every way and designed to

provide all basic human daily and comfort needs. The primary sources of energy include solar, wind, water motion, and perhaps other forms of energy later to be discovered.

Solar energy shall be derived from the use of collectors placed on the top of the central core of the main Aqua Station. Other solar panel locations may also be developed as floating energy barges near each Aqua Station. Wind energy shall be harnessed from giant windmills to be located at strategic locations around the circumference of each Aqua Station.

Water motion energy shall be derived from the use of wave motion technology and oceanic waterfall system that takes advantage of the surrounding body of water. The oceanic waterfall system allows the water to fall into a specialized deep cavity, thus turning turbines on the way to the bottom to create electricity.

Once reaching near the bottom, some of this water is funneled to desalinization units to create usable fresh water while any excess is discharged

into the ocean through an internal tube network. Other forms of energy, not yet used, may be available as this project develops over the next several years to include possibly use of safe atomic energy units.

Each Aqua Station shall be accessible through the tube-link network connecting to other Aqua Station and near by Terra Stations. Additionally, Aqua Stations shall be accessible to aircraft and ships. Ships will dock at the shipping slips provided and attached to a landing platform that is connected to a central platform containing the conveyor tunnel leading to the aqua station for boarding and unloading of goods and persons. Vertical landing aircraft shall also have access to the Station via a landing platform that is also attached and anchored to the central platform and conveyor belt system for transport of goods and persons.

Each Aqua Station will contain six (6) self-sufficient satellite dome units that are independently self- sufficient. The Aqua Stations shall provide energy, housing, food, water storage facilities, entertainment and sports complexes for those living on any Aqua Station or those visiting or passing through.

All satellite sub-station units on each Aqua Station are accessible from any other satellite unit via the central elevator system running from the bottom of the Aqua Stations to the top garden level or by the conveyor belt walking system to be located between and connecting sub-station to sub-station or by foot.

Each Aqua Station is controlled through the Central Control Section that is to be located at the garden level, along the perimeter of the central energy core. Engineering shall be responsible to oversee and control the transport system and be responsive to Central Control decisions and instructions.

Central Control shall be responsible for the operations and management of the entire facility, following the guidelines of the Aqua-Terra Holdings, Inc. directorship or an authorized management entity.

Description of the Prior Art

There are other transportation systems known in the art. While these transportation systems would be suitable for the purposes for which they were designed, they would not be as suitable for the purposes of the present invention, as hereinafter described.

SUMMARY OF THE PRESENT INVENTION

A primary object of the present invention is to provide a pneumatic and electromagnetic underwater transportation system having a plurality of ocean based and floating aqua stations and land based terra stations that are interconnected by a network of sub-surface tubes through which cylinder containers are propelled using pneumatic and electromagnetic principles to transport cargo and people.

Another object of the present invention is to provide a pneumatic and electromagnetic underwater transportation system that provides a contained environment to travel at very high speeds, much faster than current transport systems provide.

Yet another object of the present invention is to establish, resulting from the underwater transport system, each aqua station as fully self- sufficient and containing a complete infrastructure to provide utilities, food, water, housing, entertainment complexes, healthcare facilities, educational facilities (Pre-School

through University), sports, recreational, and resort facilities.

Still another object of the present invention is to provide a pneumatic and electromagnetic underwater transportation system having a comprehensive multi-tiered security and defense network to detect and thwart off potential threats.

Another object of the present invention is to provide a pneumatic and electromagnetic underwater transport system that derives its electrical power from natural resources including wind harvesting, solar and water flow energy sources.

Yet another object of the present invention is to provide a pneumatic and electromagnetic underwater transportation system wherein each aqua station provides for alternative landing platforms for airborne vehicles and platform loading and unloading docs for ocean borne vessels. Both platforms are attached to the conveyor tunnel located between the two floating platforms. Thus, cargo and passengers arriving from either air or sea have access to the aqua station. For security purposes, no vessels are permitted closer than three

hundred feet (300') from the perimeter of any aqua station.

Another object of the present invention is to provide the general world public with a safe and super speed planetary transportation system as an alternative to the slower and more hazardous present day systems using ships and aircraft.

Yet another object of the present invention is to provide a super speed transportation system using pneumatic and electromagnetic principals to catapult a cylinder container/capsule, through a tube/pipe-link network, at speeds potentially reaching 14,000 mph. The transport tube/pipe-link network is located below the surface of the ocean or any body of water, connecting each Aqua Station with all the others.

Another object of the present invention is to provide Aqua Station facilities, ultimately twelve (12) interconnected aqua stations worldwide, whereby cargo may be transported to and the general public can travel through, visit, live, or vacation at these off-shore Aqua Station facilities.

Still another object of the present invention is to provide the construction of housing, research, and operational facilities on the Aqua Stations that would include taking full advantage of current and future technological advances in all areas of human interest. In part, a designated area of the housing development on the Aqua Station would be reserved to construct housing consistent with the architecture of the on-shore community thus, retaining and depicting the traditions and art of the people living near the corresponding on-shore Terra Stations.

Still another object of the present invention is to be provide each Aqua Station with anchoring means to the bottom of the body of water and/or sits on a base platform that is connected to the hydraulic retractable stem that permits the entire Aqua Station to submerge if required. Alternatively, specialized retractable anchors may be used when the depth of the ocean is too deep for the base and stem. The Aqua Station submerges using ballast compartments that are located throughout the lower portion of the Aqua Station and in particular, at the bottom of the Aqua Station and near the top and around the circumference of the Aqua Station.

Another object of the present invention is to provide an aqua-terra planetary transport system wherein the energy sources for the transportation system and the Aqua Station community include solar, wind, and water. Solar power shall be derived from sunlight being converted into usable energy. Wind source electricity shall be provided from turbines being turned by giant windmills to be located at strategic points along the circumference of the Aqua Station. Water source electricity shall be provided from wave motion technology and the oceanic waterfall system created for this project. This double wall structure and retractable outer wall allows seawater or any body of water to enter a deep circumference cavity surrounding the entire Aqua Station and thus by this water fall affect, turbines located within the lower portion of the Aqua Station may be turned to ultimately manufacturer electricity.

Another object of the present invention is to provide an aqua-terra planetary transport system comprising a floating Aqua Station that contains several satellite self contained and sufficient domed units that also have the capacity to float if for any reason the main Aqua Station is severely damaged or detached somehow.

Still another object of the present invention is to provide an aqua-terra planetary transport system wherein the satellite units are located above the water surface, surrounded by a garden like setting with running water streams, accessed through a central elevator system and also provide for all basic human needs including housing, food, water, clothing, and entertainment.

Yet another object of the present invention is to provide an aqua-terra planetary transport system Each satellite unit is different than any other satellite unit within the Aqua Station.

Another object of the present invention is to provide an aqua-terra planetary transport system wherein all sub-stations are complimentary to each other and other sub-stations located on other Aqua Stations. All satellite units are self contained and sufficient on a smaller scale than the primary Aqua Station.

Another object of the present invention is to provide an aqua-terra planetary transport system wherein all operations are conducted from the Central

Control section located on the top level surrounding the central core of the Aqua Station. Central Control oversees all operations including engineering and utilities maintenance. Engineering and utility maintenance is located under the water surface.

Still yet another object of the present invention is to provide an aqua-terra planetary transport system wherein each offshore Aqua Station is connected to two or more land-based floatable Terra Stations. These Stations are linked by a large diameter tube/pipe-link for the purpose of transporting goods from shore to the Aqua Station. Once reaching the Aqua Station, the goods are loaded onto cylinder containers/capsules, programmed to reach the desired distant Aqua Station destination, and are immediately sent.

The foregoing and other objects and advantages will appear from the description to follow. In the description reference is made to the accompanying drawings, which forms a part hereof, and in which is shown by way of illustration specific embodiments in which the invention may be practiced. These embodiments will be described in sufficient detail to enable those skilled in the art to practice the invention, and it is to be understood that other embodiments may be utilized and that structural changes may be made without departing from the scope of the invention. In the accompanying drawings, like reference characters designate the same or similar parts throughout the several views.

The following detailed description is, therefore, not to be taken in a limiting sense, and the scope of the present invention is best defined by the appended claims.

BRIEF DESCRIPTION OF THE DRAWING FIGURES

In order that the invention may be more fully understood, it will now be described, by way of example, with reference to the accompanying drawings in which:

FIGURE 1 is a perspective view of the present invention in use;

FIGURE 2 is a perspective view of the present invention;

FIGURE 3 is a topographical view of the tube link system of the present invention;

FIGURE 4 is a detail view of the vehicle-landing platform;

FIGURE 5 is a detail view of the interior sub-station dome;

FIGURE 6 is a detail view of the engineering section of the aqua station;

FIGURE 7 is a detail view of the transport tubes and security system;

FIGURE 8 is a detail view of the transport tubes with cylinders propelled;

FIGURE 9 is a top view of the aqua station and terra station link;

FIGURE 10 is a perspective view of the aqua links to a terra station;

FIGURE 11 is a detail view of the central and alternative energy sources and the defense system;

FIGURE 12 is an illustrative view of the floatable terra station of the present invention;

FIGURE 13 is a perspective view of the transport cylinders of the present invention;

FIGURE 14 is an illustrative view of the security and maintenance sub-surface vehicles of the present invention;

FIGURE 15 is an illustrative view of the self-sufficient, floatable dome independent from the master aqua station;

FIGURE 16 is a sectional view of the tube end sealing iris of the present invention;

FIGURE 17 is a cross sectional view of the tube and cylinder of the present invention;

FIGURE 18 is a cross sectional view of the tube and cylinder of the present invention;

FIGURE 19 is a side view of the alternate shaped transportation tubes of the present invention;

FIGURE 20 is an illustrative view of a floating farm of the present invention;

FIGURE 21 is a sectional view of the present invention;

FIGURE 22 is a floor plan of the present invention;

FIGURE 23 is an illustrative view of the present invention;

FIGURE 24 is a sectional view of the tube end sealing iris and suction connector of the present invention;

FIGURE 25 is an illustrative view of the external security and defense system components; and

FIGURE 26 is an illustrative view of the internal security system.

DESCRIPTION OF THE REFERENCED NUMERALS

Turning now descriptively to the drawings, in which similar reference characters denote similar elements throughout the several views, the figures illustrate the Aqua-Terra Planetary Transport and Development System of the present invention. With regard to the reference numerals used, the following numbering is used throughout the various drawing figures.

10 Aqua-Terra Planetary Transport and Development System

12 aqua station

14 terra station

16 surface structure of 12

18 subsurface base

20 platform base of 18

22 retractable anchors of 18

24 retractable dome of 16

26 satellite sub-station

28 central solar base energy core

30 central core security and defense shield

32 alternate solar self-sufficient energy source

34 floating sea farm cages and tanks

36 vertical landing platform for aircraft

38 lighting for 36

40 loading and unloading platform and tunnel

42 landing platform and slips for ships

44 lighting for 42

46 garden and outdoor activities facility

48 water surface

50 port holes

52 transportation station

54 elevators

56 security curtain

58 transport system extension cavity

60 weight and stabilization chamber

62 ballast compartments

64 detachable section

66 hydraulic stem

68 anchoring means

70 ocean floor

72 storage facility, food supplies, engineering and utilities section

74 transportation tube link network

76 multi-flex tube

78 sub-water lighting

79 waterfall energy source

80 double wall for waterfall energy source

82 additional housing, entertainment complex and other developments

84 wind energy sources

86 hemispheric satellites

88 land

90 cities

92 retractable water-tight upper security curtain

94 resort golf course

96 conveyor belt transport system to station

98 internal transport system circumference of aqua station

100 lower security curtain

102 upper security curtain water-tight groove

103 retractable upper security curtain

104 lights

106 sub-station core stem

108 indoor sports arena

110 garden and outdoor entertainment complexes

112 elevated housing

114 drone security and defense vehicles

116 transport system extension cavity

118 extension to tube link line transport tubes

120 water-tight plug in external tube link connector

122 iris behind connector joint

124 emergency detachment connector with iris seal

126 stabilization anchors for tube link

128 security and defense platform attachment ring

130 transport tubes

132 cylinder capsule

134 security and defense floating platform

136 radar and laser of 134

138 sub-water surface torpedo launcher tubes

140 sonar sensor and electro security system

142 main link to terra station

144 security rings

146 security drones

148 directional scrambler security and defense system

150 ocean

152 external tube link landing and loading docks

154 cargo transport cylinder

156 human transport cylinder

160 retractable fins

162 rear swivel blades

164 aquatic turbo thrusters

166 loading and unloading sliding doors

168 retractable high speed wheels

170 external capsule status sensors and directional navigations device

172 security and sub maintenance crew and vehicle

174 substation security and defense system

176 substation cavity

178 suction connector

180 pressurized section of 120

182 internal double wall of 130

184 high speed wheel platform

186 electromagnetic line

188 offset tube link

190 90 degree tube link

192 "Y" shaped tube section

194 "U" shaped tube section

196 crossing connector section

198 straight tube section

200 sub-floor space for wire distribution

202 central energy core

204 level one

206 level two

208 level three

210 level four

212 level five

214 emergency iris seals

216 water fall intake

218 sub-surface walkways connecting sub-station to sub-station

220 circumference sports track

222 recreational park

224 river and streams

226 retractable watertight sealing door

228 pedestrian walks/sports track

230 watertight outer rim seal track

232 360 degree surveillance camera

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The following discussion describes in detail one embodiment of the invention. This discussion should not be construed, however, as limiting the invention to those particular embodiments, practitioners skilled in the art will recognize numerous other embodiments as well. For definition of the complete scope of the invention, the reader is directed to appended claims.

Figure 1 is a perspective view of the present invention **10** in use. The present invention is an electro-magnetic sub-water transportation system operates through the use of magnetic and pneumatic principles. It propels cylinder containers through a tube link network which is located below the ocean's surface and connected to other aqua stations **12** located in distant areas from each other. Each station will be seven miles in diameter and not less than 15.2 miles off-shore at various locations.

Figure 2 is a perspective view of the present invention **10**. Shown is an aqua station **12** of the electro-magnetic sub-water transportation system **10** and related components. The aqua station **12** includes a retractable master dome **24**

wind energy sources **84**, hemispheric satellites **86**, a central solar base energy core **28**, an alternate solar self-sufficient energy source **32**, floating sea farm cages and tanks **34**, vertical landing platform for aircraft **36** with lighting **38**, a loading and unloading platform and tunnel **40**, landing platform and slips for ships **42** with lighting **44**, garden and outdoor activities facilities **46**, port holes **50**, transportation station **52**, elevators **54**, security curtain **56**, transport system extension cavity **58**, weight and stabilization chamber **60**, ballast compartments **62**, detachable section **64**, hydraulic stem **66**, anchoring means **68** which include a platform base **20** or retractable anchors **22** to secure the aqua station **12** to the ocean floor **70**, a storage facility food supplies and engineering and utilities section **72**, a transportation tube link network **74**, multi-flex tube link section **76**, sub-water lighting **78**, double wall for waterfall energy source **80**, additional housing, entertainment complex and other developments **82**, and satellite self-sufficient/floatable sections of station housing/living quarters entertainment/development centers/greenhouse farming in other designated satellite sections all with retractable domes **26**.

Figure 3 is a topographical view of the tube link system **74** of the present invention **10**. Shown is the link between the terra stations **14** on the land **88** near

cities **90** and the aqua stations **12** via multi-flex tube link networks **74**. Two to four terra stations **14** (in the region) connect to one aqua station **12**.

Figure 4 is a detail view of the vehicle-landing platform **36**. Ships and airborne vehicles gain access to the aqua station **12** by using their appropriate landing platform that connects to the conveyor tunnel platform **96**. Also shown are the porthole hotel and resort **106**, retractable water-tight upper security curtain **92**, resort golf course **94**, airborne vehicles landing platform ballast system and anchored **36**, platform and tunnel to station **40**, automated ships landing platform with slips **44**, lower security curtain **100**, upper security curtain water tight groove **102** and lights **104**.

Figure 5 is a detail view of the interior sub-station dome **26**. Shown is a partial view of the garden areas **110**, outdoor activities facilities and some housing **112**. This level of the dome is above the water line and can be accessed via any level of the aqua station by the central elevator system and circumference transport system to move from substation **26** to substation **26** as desired. The central elevator system links to every level of the station and sub-stations **26**.

Figure 6 is a detail view of the engineering section **72** of the aqua station **12**. Shown is a partial view of the engineering quarters. All transport system operations are monitored and conducted at this level. This level of the aqua station **12** is under the water surface. The utility section includes storage and repair facilities for tube link components and other elements of the transport system.

Figure 7 is a detail view of the transport tubes **130** and security system. The approximate diameter of the transport tube **130** is 15 to 18 feet. The cylinders **132** are approximately 12 feet in diameter and are propelled through the tube networks at up to 14,000 miles per hour to their desired location. The approximate diameter of the transport tube **130** is 15 to 18 feet. The cylinders **132** are approximately 12 feet in diameter and are propelled through the tube networks **74** at up to 14,000 miles per hour to their destination. Also shown are the solar powered drone security and defense vehicles **114**, a security and defense floating platform **134**, security and defense platform attachment ring **128**, stabilization anchors for tube link **126**, sub-surface lights **78**, emergency detachment connector with iris seal **124**, a hydraulic stem **66** to permit the entire

station to submerge if required, an iris **122** behind the connector joint, a water tight plug-in external tube link connector **120**, an extension to tube link line transport tubes **118** and a transport system extension cavity **116**.

Figure 8 is a detail view of the transport tubes **130** with cylinders **132** propelled. The approximate diameter of the transport tube **130** is 15 to 18 feet. The cylinders **132** are approximately 12 feet in diameter and are propelled through the tube networks at up to 14,000 miles per hour to their desired location. Also shown is the security and defense floating platform **134** with radar and laser **136**, sub-water surface torpedo launcher tubes **138**, sonar and electro security system **140,** holding clamp and stabilization anchors **126**.

Figure 9 is a top view of the aqua station **12** and terra stations **14** link depicting a link between the aqua transport station to the terra station **14** via a tube link **74**. Also shown is the internal circumference transport system **98** and orbiting security and defense space satellites **86**, central energy core **28**, satellite sub station **26**, transportation tube **76**, external tube link landing and loading docks **152**, elevator tube system **54**, satellite self sufficient energy core **32**,

garden and outdoor activities center **46** and cities **90** proximal to the terra stations **14**.

Figure 10 is a perspective view of the aqua links to a land **88** based terra station **14**. Shown are several aqua stations **12** connected by transport tubes **74** to one another and also connected to terra stations **14**. Also shown are the retractable master dome **24** tube link stabilization anchors and security and defense platforms **126**, security rings (two mile sensors, radar, sonar, visual and audio) and defense platforms **144**, retractable anchors **22**, anchor base **20**, and the main link to terra station **14**

Figure 11 is a detail view of the central and alternative energy sources and the defense system. The main source of energy comes from the central solar base energy core **28**. Each self-sufficient floatable dome may be powered by its own alternate power source. Additional wind **84**, ocean **80** and other energy sources shall be used such as an alternate self sufficient solar energy source **32**. The defense system is activated by non-response and confirmed non-directional change. The shield and laser defense is activated upon the non-response and confirmed non-directional change by the incoming object. A retractable upper

security curtain **103**, an upper security curtain groove **102** and lower security curtain **100** provide additional security. Drones **146** are also available security. Also shown are a directional scrambler security and defense system **148** that rises and retracts 25 feet, a double waterfall energy system **80**, extension cavity water tight double iris seal **58**, ballast compartment **62** going around the entire circumference, sub-water lighting **78** and security and defense hemispheric satellites **86**.

Figure 12 is an illustrative view of the floatable terra station **14** of the present invention. The floatable terra (land) stations **14** provide the ocean **150** based aqua stations **12** with goods from shore via the transport tubes **74** and transport cylinders **132**. Supplies and goods are transported to the land station from cities **90** near and far. Once the products enter the tube system, they may be transported to any destination along the tube link network **74** via a computerized coding system. Ultimately, the world public will travel long distances via this transport system. High tech security systems will also be installed in all aqua and terra stations.

Figure 13 is a perspective view of a human transport cylinder **156** and a cargo transport cylinder **154** of the present invention. The electro-magnetic sub-water transportation system operates through the use of magnetic and pneumatic principles. It may propel a cylinder through a tube link network **74** which is located below the oceans **150** surface, to other systems located in distant areas from each other. The cylinders may further include retractable fins **160** rear swivel blades **162**, aquatic turbo thrusters **164**, loading and unloading doors **166**, external capsule status sensors and directional navigations device **170**, a sliding water tight door **172** and a watertight emergency escape hatch **158**.

Figure 14 is an illustrative view of the security and maintenance sub-surface vehicles **172** of the present invention. The transportation tube link **74** may be patrolled and maintained by engineering **72** through the use of under water vehicles capable of doing the required external repairs necessary. Additionally, some vehicles may be armed with torpedoes to secure the station and tube link network**74**. also shown is the sub-surface lighting **78**, ballast compartments **62**, detachable section and connector with iris water seal **124** and the multi-flex tube link section **76**.

Figure 15 is an illustrative view of the self-sufficient, floatable dome **26** independent from the master aqua station **12**. Each self-sufficient dome **26** consists of its own power source, living quarters, food and water supply and is entirely independent from the main master dome. Security and defense features are provided on a smaller scale to all substations **26** by a sub-station security and defense system **174**. Also shown is the substation cavity **176** prior to insertion of substation **26**.

Figure 16 is a sectional view of the water tight plug in external tube link connector **120** of the present invention. At the end of each tube link **130** is a watertight suction connector **178** and iris seal **122** to seal off a pressurized area **180**, thereby preventing water from entering. Also shown are ballast compartments **62**.

Figure 17 is a cross sectional view of the tube **130** and cylinder **132** of the present invention. Shown are the transport tubes **130** of the present invention. The approximate diameter of the transport tube **130** is 15 to 18 feet with a length of 30 to 50 feet per section. The cylinders **132** are approximately 12 feet in

diameter and are, at full speed, propelled through the tube network **74** at up to 14,000 miles per hour to their destination. Also shown are the iris seals **122**, the suction connectors **178** and the ballast compartments **62**.

Figure 18 is a cross sectional view of the tube **130** and cylinder **132** of the present invention. Shown are the transport tubes **130** of the present invention. The approximate diameter of the transport tube is 15 to 18 feet. The cylinders **132** are approximately 12 feet in diameter and are propelled through the tube networks at up to 14,000 miles per hour to their destination. Also shown are the internal double wall **182**, high speed wheel platform **184**, the electromagnetic line **186**, retractable high speed wheels **168**, ballast compartments **62**, rear swivel blades **162** and aquatic thrusters **164**.

FIGURE 19 is a side view of the alternate shaped transportation tubes **130** of the present invention. Shown are various configurations for the transport tubes **130** of the present invention. The approximate diameter of the transport tube **130** is 15 to 18 feet. The cylinders **132** are approximately 12 feet in diameter and are propelled through the tube networks **74** at up to 14,000 miles per hour to their destination. Shown is an offset tube link **188**, a 90-degree tube

section **190**, a "Y" shaped tube section **192**, a "U" shaped tube section **194**, a crossing connector tube section **196**, and a straight tube section **198**. also shown are iris seals **122**, suction connectors **178** and ballast compartments **62**.

Figure 20 is an illustrative view of a floating farm **34** of the present invention. Floating farm stations **34** are provided and are located around the surrounding ocean **150** waters of the aqua station **12**. Each farm **34** provides an abundance of aquatic foods raised and cared for as a source of food for the people aboard the aqua stations **12** and worldwide consumer community. Further out from the aqua station **12** is the 2-mile security and defense system **134**. Also shown are the ship cargo passenger loading and unloading platform **42**, the loading and unloading platform from tunnel **40**, the vertical landing platform for aircraft **36**, port holes **50** on both sides of the tunnel, the directional scrambler security and defense system **148** and sub station security and defense system **174**.

Figure 21 is a sectional view of the aqua station **12** of the present invention. Water enters the double wall hull **80** and cascades down to turn

turbines for generators, while en route to desalinization section. Also shown are the central solar base energy source **28**, wind energy source **84**, directional scrambler security and defense system **148**, the waterfall energy source **79**, the sub-floor space for wire distribution **200**, the central energy core **202** and wiring network leading to each level and sub floor distribution, the central elevator **54**, the alternate self sufficient solar energy source **32**, level one **204** the upper main level containing housing, greenhouse, farming entertainment/sports complex and operation control, level two **206** containing housing, sea farming and an entertainment complex, level three **208** containing engineering, loading and unloading, storage and turbines, level four **210** containing housing, entertainment and educational center and level five **212** containing storage, rod section, science labs and manufacturing.

Figure 22 is a floor plan of the present invention. Shown above are some of the different levels or floor plans provided within the interior housing of the present invention. Also shown is the double wall hull **80** of the present invention showing water access, allowing water to enter and provide energy to turn turbines for the generation and distribution of power. Shown are level one **204**, level two **206**, level three **208**, level four **210** and their respective double

walls **80** and water fall intakes **216** and level five **212**. all levels have water tight emergency iris seals **214**.

Figure 23 is an illustrative view of the present invention. Shown is a section of the present invention having a plurality of recreational facilities, living quarters and transportation system. Shown are sub-stations **26**, the master central core **202**, retractable dome sports arena **108**, sub-surface walkways connecting sub-station **26** to sub-station **26**, circumference external lighting **104**, circumference portholes **50**, elevated housing **112**, circumference sports track **220**, 18 hole golf course **94**, recreational park **222**, internal circumference transport system **98**, and river and streams **224**.

Figure 24 is a sectional view of the tube end sealing iris **122** and suction connector **158** of the present invention. An iris seal **122** is provided to seal off a pressurized area and prevents water from entering. It is used at the junction between the hydraulic stem and the lowest point of the main aqua station and between each level.

Figure 25 is an illustrative view of the external security and defense system components. The external security system is comprised of various elements and functions including defense above and below the surface of the body of water where the aqua station and tube link network may be located. The aqua stations are protected by a security and defense system to be located on floating and anchored platforms forming a two mile circumference detector and security field around each aqua station. The two mile detector field **144** will be equipped with radar, specialized sonar, visual and audio capacity. Laser defense instruments and smart torpedoes are available to intercept aircraft, above and below ocean surface vessels, torpedoes and other such threats. Shown are the subwater security vehicles **172**, the retractable sub-surface explosion proof stainless and special alloy curtain **56**, the retractable water tight sealing door **226**, solar and alternate powered flying drone security vehicles **146**, hemispheric satellites **86**, a mile security and defense system **144** with floating and anchored platforms **134** with radar, laser, torpedo, visual and audio capacity.

Figure 26 is an illustrative view of the internal security system. The entire aqua and terra stations shall be equipped with visual and audio surveillance detection and sensor devices to detect any potential danger or

hazard that may exist internally to the aqua station and persons within. Additionally, specially trained security teams will routinely walk the public and private areas of the entire station to assure the safety of all inhabitants and guests. The only transport system contained within the aqua station **14** is the circumference transport system **98**. No other people type vehicles will be permitted on the station except for golf carts used on the day and night time golf courses and limited community travel for those physically unable to walk. Sport related facilities will include tracks for bicycle riders, runners and walkers. All of those areas will be secured by sensors, visual, audio detection devices, and security personnel policing all public areas. Shown are the water tight outer rim seal track **230**, internal lights **104**, recreation area **222**, retractable water tight perimeter security curtain **92**, pedestrian walks/sport track **228**, 360 degree security cameras **232** with audio and other sensors, circumference transport system **98** and external sport track **220**.